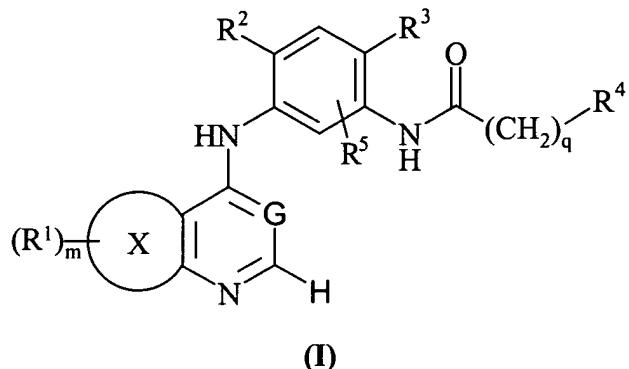


IN THE CLAIMS:

Claim 1 (canceled).

Claim 2 (currently amended and reformatted): A **bicyclic bielylie** compound of the Formula (I): ~~according to claim 1~~



(I)

wherein:

G is N;

the bicyclic ring formed by the fusion of ring X to the adjacent nitrogen-containing 6-membered heteroaryl ring within Formula (I) is furopyrimidinyl, thienopyrimidinyl, pyrrolopyrimidinyl, oxazolopyrimidinyl, thiazolopyrimidinyl, purinyl, pyridopyrimidinyl, pyrimidopyrimidinyl or pteridinyl;

m is 0 or ~~m is 1; and each~~

R¹ is **independently** hydroxy, halo, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆alkylS(O)_n- (wherein n is 0-2), N,N-(C₁₋₆alkyl)₂aminoC₁₋₆alkyl, N,N-(C₁₋₆alkyl)₂carbamoylC₁₋₆alkoxy, N,N-(C₁₋₆alkyl)₂aminoC₁₋₆alkoxy, C₁₋₆alkylS(O)₂-C₁₋₆alkoxy, N,N-(C₁₋₆alkyl)₂amino-N-(C₁₋₆alkyl)C₁₋₆alkylamino, N,N-(C₁₋₆alkyl)₂aminoC₁₋₆alkylaminoC₁₋₆alkyl, piperidin-1-ylC₁₋₆alkyl, homopiperidin-1-ylC₁₋₆alkyl, N-(C₁₋₆alkyl)piperidin-1-ylC₁₋₆alkyl, N-(C₁₋₆alkyl) homopiperidin-1-ylC₁₋₆alkyl, piperazin-1-ylC₁₋₆alkyl, 4-C₁₋₆alkylpiperazin-1-ylC₁₋₆alkyl, homopiperazinyl-1-ylC₁₋₆alkyl, 4-C₁₋₆alkylhomopiperazinyl-1-ylC₁₋₆alkyl, pyrrolidinylC₁₋₆alkoxy, piperidinylC₁₋₆alkoxy, homopiperidinylC₁₋₆alkoxy, N-(C₁₋₆alkyl)pyrrolidinylC₁₋₆alkoxy, N-(C₁₋₆alkyl)piperidinylC₁₋₆alkoxy,

N-(C₁₋₆alkyl)homopiperidinylC₁₋₆alkoxy, morpholinylC₁₋₆alkoxy, piperazinylC₁₋₆alkoxy,
N-(C₁₋₆alkyl)piperazinylC₁₋₆alkoxy, homopiperazinylC₁₋₆alkoxy,
N-(C₁₋₆alkyl)homopiperazinylC₁₋₆alkoxy, pyrrolidinyloxy, *N*-(C₁₋₆alkyl)pyrrolidinyloxy,
piperidinyloxy, *N*-(C₁₋₆alkyl)piperidinyloxy, homopiperidinyloxy,
N-(C₁₋₆alkyl)homopiperidinyloxy, morpholinylC₁₋₆alkylaminoC₁₋₆alkyl, thiazolylC₁₋₆alkoxy
or pyridylC₁₋₆alkoxy;

and any aryl, heteroaryl or heterocyclyl group in a R¹ group may be optionally substituted with
one or more groups selected from hydroxy, halo, C₁₋₆alkyl, C₁₋₆alkoxy, carboxy,
C₁₋₆alkoxycarbonyl, carbamoyl, *N*-C₁₋₆alkylcarbamoyl, *N*-(C₁₋₆alkyl)₂carbamoyl, C₂₋₆alkanoyl,
amino, *N*-C₁₋₆alkylamino and *N,N*-(C₁₋₆alkyl)₂amino,
and any heterocyclyl group in a R¹ group may be optionally substituted with one or two oxo or
thioxo substituents,

and any of the R¹ groups defined hereinbefore which comprises a CH₂ group which is attached
to 2 carbon atoms or a CH₃ group which is attached to a carbon atom may optionally bear on
each said CH₂ or CH₃ group a substituent selected from hydroxy, amino, C₁₋₆alkoxy, *N*-
C₁₋₆alkylamino, *N,N*-(C₁₋₆alkyl)₂amino and heterocyclyl;

R² is hydrogen, C₁₋₄alkyl or halo;

R³ is hydrogen, C₁₋₄alkyl or halo;

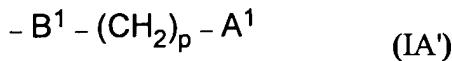
q is 0;

R⁴ is phenyl, thienyl, furyl, oxazolyl, isoxazolyl, pyrimidyl or pyridyl optionally substituted by
one or two halo, trifluoromethyl, cyano, C₁₋₄alkyl, C₁₋₄alkoxy, -O-(C₁₋₃alkyl)-O-,
N,N-(C₁₋₄alkyl)₂amino, C₁₋₆alkanoylamino, C₁₋₆alkylsulphonyl-*N*-(C₁₋₆alkyl)amino, phenyl
(optionally substituted by one or two halo groups), furyl, azetidinyl, pyrrolidinyl, 3-
pyrrolinyl, piperidinyl piperidine, homopiperidinyl, morpholino, piperazinyl,
homopiperazinyl, *N*-(C₁₋₆alkyl)piperazinyl and *N*-(C₁₋₆alkyl)homopiperazinyl, or R⁴ is
fluorenyl or dibenzofuranyl;

and any aryl, heteroaryl or heterocyclyl group in a R⁴ group may be optionally substituted by
one or more groups selected from hydroxy, halo, trifluoromethyl, cyano, mercapto, nitro,
amino, carboxy, carbamoyl, formyl, sulphamoyl, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl,
C₁₋₆alkoxy, -O-(C₁₋₃alkyl)-O-, C₁₋₆alkylS(O)_n- (wherein n is 0-2), *N*-C₁₋₆alkylamino,

N,N-(C₁₋₆alkyl)₂amino, C₁₋₆alkoxycarbonyl, N-C₁₋₆alkylcarbamoyl, N,N-(C₁₋₆alkyl)₂carbamoyl, C₂₋₆alkanoyl, C₁₋₆alkanoyloxy, C₁₋₆alkanoylamino, N-C₁₋₆alkylsulphamoyl, N,N-(C₁₋₆alkyl)₂sulphamoyl, C₁₋₆alkylsulphonylamino and C₁₋₆alkylsulphonyl-N-(C₁₋₆alkyl)amino,

or any aryl, heteroaryl or heterocyclyl group in a R⁴ group may be optionally substituted with one or more groups of the Formula (IA'):



wherein A¹ is halo, hydroxy, C₁₋₆alkoxy, cyano, amino, N-C₁₋₆alkylamino, N,N-(C₁₋₆alkyl)₂amino, carboxy, C₁₋₆alkoxycarbonyl, carbamoyl, N-C₁₋₆alkylcarbamoyl or N,N-(C₁₋₆alkyl)₂carbamoyl, p is 1 - 6, and B¹ is a bond, oxy, imino, N-(C₁₋₆alkyl)imino or -NHC(O)-, with the proviso that p is 2 or more unless B¹ is a bond or -NHC(O)-, or any aryl, heteroaryl or heterocyclyl group in a R⁴ group may be optionally substituted with one or more groups of the Formula (IB'):



wherein D¹ is aryl, heteroaryl or heterocyclyl and E¹ is a bond, C₁₋₆alkylene, oxyC₁₋₆alkylene, oxy, imino, N-(C₁₋₆alkyl)imino, iminoC₁₋₆alkylene, N-(C₁₋₆alkyl)-iminoC₁₋₆alkylene, C₁₋₆alkylene-oxyC₁₋₆alkylene, C₁₋₆alkylene-iminoC₁₋₆alkylene, C₁₋₆alkylene-N-(C₁₋₆alkyl)-iminoC₁₋₆alkylene, -NHC(O)-, -NHSO₂- , -SO₂NH- or -NHC(O)-C₁₋₆alkylene-,

and any aryl, heteroaryl or heterocyclyl group in a substituent on R⁴ may be optionally substituted with one or more groups selected from hydroxy, halo, C₁₋₆alkyl, C₁₋₆alkoxy, carboxy, C₁₋₆alkoxycarbonyl, carbamoyl, N-C₁₋₆alkylcarbamoyl, N-(C₁₋₆alkyl)₂carbamoyl, C₂₋₆alkanoyl, amino, N-C₁₋₆alkylamino and N,N-(C₁₋₆alkyl)₂amino,

and any C₃₋₇cycloalkyl or heterocyclyl group in a R⁴ group may be optionally substituted with one or two oxo or thioxo substituents,

and any of the R⁴ groups defined hereinbefore which comprises a CH₂ group which is attached to 2 carbon atoms or a CH₃ group which is attached to a carbon atom may optionally bear on each said CH₂ or CH₃ group a substituent selected from hydroxy, amino, C₁₋₆alkoxy, N-C₁₋₆alkylamino, N,N-(C₁₋₆alkyl)₂amino and heterocyclyl;

and

R^5 is hydrogen;

or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof.

Claim 3 (currently amended): A bicyclic compound of the Formula (I) according to claim 2 ~~4~~ wherein:

~~the bieyelie ring formed by the fusion of ring X to the adjacent nitrogen-containing 6-membered heteroaryl ring within Formula (I) is furopyrimidinyl, thienopyrimidinyl, pyrrolopyrimidinyl, oxazolopyrimidinyl, thiazolopyrimidinyl, purinyl, pyridopyrimidinyl, pyrimidopyrimidinyl or pteridinyl;~~

~~m is 0 or m is 1 and each R^1 is independently~~ hydroxy, halo, C_{1-6} alkyl, C_{1-6} alkoxy,

C_{1-6} alkylS(O)_n- (wherein n is 0-2), N,N -(C_{1-6} alkyl)₂amino C_{1-6} alkyl,

N,N -(C_{1-6} alkyl)₂carbamoyl C_{1-6} alkoxy, N,N -(C_{1-6} alkyl)₂amino C_{1-6} alkoxy,

C_{1-6} alkylS(O)₂- C_{1-6} alkoxy, N,N -(C_{1-6} alkyl)₂amino- N -(C_{1-6} alkyl) C_{1-6} alkylamino,

N,N -(C_{1-6} alkyl)₂amino C_{1-6} alkylamino C_{1-6} alkyl, piperazin-1-yl C_{1-6} alkyl, 4- C_{1-6} alkylpiperazin-1-yl C_{1-6} alkyl, homopiperazinyl-1-yl C_{1-6} alkyl, 4- C_{1-6} alkylhomopiperazinyl-1-yl C_{1-6} alkyl,

pyrrolidinyl C_{1-6} alkoxy, piperidinyl C_{1-6} alkoxy, N -(C_{1-6} alkyl)pyrrolidinyl C_{1-6} alkoxy,

N -(C_{1-6} alkyl)piperidinyl C_{1-6} alkoxy, morpholinyl C_{1-6} alkoxy, piperazinyl C_{1-6} alkoxy,

N -(C_{1-6} alkyl)piperazinyl C_{1-6} alkoxy, homopiperazinyl C_{1-6} alkoxy,

N -(C_{1-6} alkyl)homopiperazinyl C_{1-6} alkoxy, pyrrolidinyl O , piperidinyl O ,

morpholinyl C_{1-6} alkylamino C_{1-6} alkyl or pyridyl C_{1-6} alkoxy; and

R^2 is hydrogen, C_{1-4} alkyl or halo;

R^3 is hydrogen, C_{1-4} alkyl or halo;

q is 0;

R^4 is phenyl, thienyl, furyl, oxazolyl, isoxazolyl, pyrimidyl or pyridyl optionally substituted by one or two halo, cyano, C_{1-4} alkyl, C_{1-4} alkoxy, N,N -(C_{1-4} alkyl)₂amino, piperidinyl, morpholino or piperazinyl; and

R^5 is hydrogen;

or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof.

Claim 4 (currently amended): A bicyclic compound of the Formula (I) according to claim 24 wherein:

the bicyclic ring formed by the fusion of ring X to the adjacent nitrogen-containing 6-membered heteroaryl ring within Formula (I) is furo[3,2-*d*]pyrimidinyl, furo[2,3-*d*]pyrimidinyl, thieno[3,2-*d*]pyrimidinyl, thieno[2,3-*d*]pyrimidinyl, pyrrolo[3,2-*d*]pyrimidinyl, pyrrolo[2,3-*d*]pyrimidinyl, oxazolo[5,4-*d*]pyrimidinyl, oxazolo[4,5-*d*]pyrimidinyl, thiazolo[5,4-*d*]pyrimidinyl, thiazolo[4,5-*d*]pyrimidinyl, purinyl, pyrido[2,3-*d*]pyrimidinyl, pyrido[3,4-*d*]pyrimidinyl, pyrido[4,3-*d*]pyrimidinyl, pyrido[3,2-*d*]pyrimidinyl, pyrimido[4,5-*d*]pyrimidinyl, pyrimido[5,6-*d*]pyrimidinyl or pteridinyl;

~~m is 0 or m is 1 and each~~ R¹ is independently methyl, methoxy, methylthio, 2-diisopropylaminoethoxy, 3-diethylaminopropoxy, 3-morpholinopropoxy or 3-pyrrolidin-1-ylpropoxy;

R² is hydrogen, methyl, fluoro or chloro;

R³ is hydrogen; and

~~q is 0;~~

R⁴ is phenyl optionally substituted by one or two groups selected from fluoro, chloro, trifluoromethyl, cyano, methyl, methoxy, ethoxy, methylenedioxy, *N,N*-dimethylamino, acetamido, *N*-methylmethanesulphonamido, phenyl, 4-fluorophenyl, 4-chlorophenyl, 2-furyl, azetidin-1-yl, pyrrolidin-1-yl, 3-pyrrolin-1-yl, piperidino, homopiperidin-1-yl, morpholino, piperazin-1-yl, homopiperazin-1-yl, 4-methylpiperazin-1-yl and 4-methylhomopiperazin-1-yl,

or R⁴ is pyridyl optionally substituted by a *N,N*-dimethylamino, *N,N*-diethylamino, azetidin-1-yl, pyrrolidin-1-yl, 3-pyrrolin-1-yl, piperidino, homopiperidin-1-yl, morpholino, piperazin-1-yl, homopiperazin-1-yl, 4-methylpiperazin-1-yl or 4-methylhomopiperazin-1-yl group, or R⁴ is 1-fluorenyl or dibenzofuran-4-yl; and

~~R⁵ is hydrogen;~~

or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof.

Claim 5 (currently amended): A bicyclic compound of the Formula (I) according to claim 2 ~~1~~ wherein:

the bicyclic ring formed by the fusion of ring X to the adjacent nitrogen-containing 6-membered heteroaryl ring within Formula (I) is furo[3,2-*d*]pyrimidinyl, furo[2,3-*d*]pyrimidinyl, thieno[3,2-*d*]pyrimidinyl, thieno[2,3-*d*]pyrimidinyl, pyrrolo[3,2-*d*]pyrimidinyl, pyrrolo[2,3-*d*]pyrimidinyl, oxazolo[5,4-*d*]pyrimidinyl, oxazolo[4,5-*d*]pyrimidinyl, thiazolo[5,4-*d*]pyrimidinyl, thiazolo[4,5-*d*]pyrimidinyl, purinyl, pyrido[2,3-*d*]pyrimidinyl, pyrido[3,4-*d*]pyrimidinyl, pyrido[4,3-*d*]pyrimidinyl, pyrido[3,2-*d*]pyrimidinyl, pyrimido[4,5-*d*]pyrimidinyl, pyrimido[5,6-*d*]pyrimidinyl or pteridinyl;

~~m is 0 or m is 1 and each~~ R¹ is independently methyl, methoxy, methylthio, 2-diisopropylaminoethoxy, 3-diethylaminopropoxy, 3-morpholinopropoxy or 3-pyrrolidin-1-ylpropoxy;

R² is hydrogen, methyl, fluoro or chloro;

R³ is hydrogen; and

~~q is 0;~~

R⁴ is pyridyl optionally substituted by a *N,N*-dimethylamino, *N,N*-diethylamino, pyrrolidin-1-yl, piperidino or morpholino group; and

~~R⁵ is hydrogen;~~

or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof.

Claim 6 (currently amended): A bicyclic compound of the Formula (I) according to claim 2 ~~Claim 1~~ wherein:

the bicyclic ring formed by the fusion of ring X to the adjacent nitrogen-containing

6-membered heteroaryl ring within Formula (I) is thieno[3,2-*d*]pyrimidin-4-yl, thieno[2,3-*d*]pyrimidin-4-yl, thiazolo[5,4-*d*]pyrimidin-7-yl, 6-purinyl, pyrido[2,3-*d*]pyrimidin-4-yl, pyrido[3,4-*d*]pyrimidin-4-yl, pyrido[4,3-*d*]pyrimidin-4-yl, pyrido[3,2-*d*]pyrimidin-4-yl or pteridin-4-yl;

~~m is 0 or m is 1 and~~ R¹ is methyl or methylthio;

R² is methyl;

R^3 is hydrogen; **and**

~~q is 0;~~

R^4 is phenyl, 3-fluorophenyl, 4-cyanophenyl, 2-methylphenyl, 2-methoxyphenyl, 3-methoxyphenyl, 3-ethoxyphenyl, 3,4-dimethoxyphenyl, 3,4-methylenedioxophenyl, 3-(*N,N*-dimethylamino)phenyl, 3-acetamidophenyl, 3-(4-fluorophenyl)phenyl, 3-(2-furyl)phenyl, 3-pyrrolidin-1-ylphenyl, 3-morpholinophenyl, 3-fluoro-5-pyrrolidin-1-ylphenyl, 3-fluoro-5-piperidinophenyl, 3-fluoro-5-morpholinophenyl or 3-morpholino-5-trifluoromethylphenyl, or R^4 is 2-morpholinopyrid-4-yl, or R^4 is 1-fluorenyl or dibenzofuran-4-yl; **and**

R^5 is hydrogen;

or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof.

Claim 7 (currently amended): A bicyclic compound of the Formula (I) according to claim 2 ¶ wherein:

the bicyclic ring formed by the fusion of ring X to the adjacent nitrogen-containing 6-membered heteroaryl ring within Formula (I) is thieno[3,2-*d*]pyrimidin-4-yl, thieno[2,3-*d*]pyrimidin-4-yl, thiazolo[5,4-*d*]pyrimidin-7-yl, pyrido[2,3-*d*]pyrimidin-4-yl, pyrido[3,4-*d*]pyrimidin-4-yl, pyrido[4,3-*d*]pyrimidin-4-yl, pyrido[3,2-*d*]pyrimidin-4-yl or pteridin-4-yl;

~~m is 0 or m is 1 and~~ R^1 is methyl or methylthio;

R^2 is methyl;

R^3 is hydrogen; **and**

~~q is 0;~~

R^4 is 2-morpholinopyrid-4-yl; **and**

R^5 is hydrogen;

or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof.

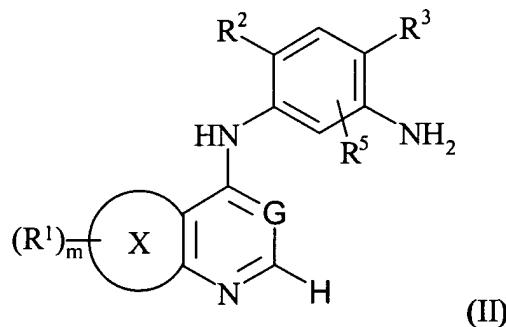
Claim 8 (currently amended): A bicyclic compound of the Formula (I) according to claim 2 ¶ selected from:

4-[2-methyl-5-(2-morpholinopyridine-4-carboxamido)anilino]thieno[3,2-*d*]pyrimidine,

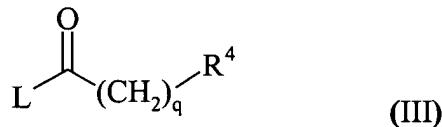
4-[2-methyl-5-(2-morpholinopyridine-4-carboxamido)anilino]pyrido[4,3-*d*]pyrimidine,
 4-[2-methyl-5-(2-morpholinopyridine-4-carboxamido)anilino]pteridine and
 6-[2-methyl-5-(2-morpholinopyridine-4-carboxamido)anilino]purine;
 or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof.

Claim 9 (currently amended): A process for preparing a compound of the Formula (I), or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof, according to claim 2 4 which comprises:

a) reacting an aniline of the Formula (II):

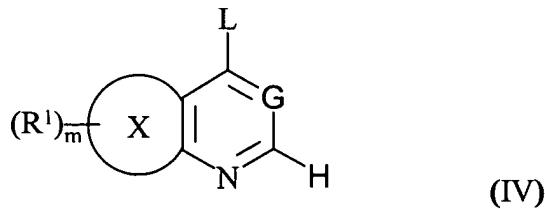


with an acyl compound of the Formula (III):

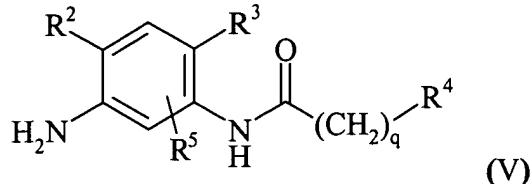


wherein G, R¹, R², R³, R⁴, R⁵, m, q and the bicyclic ring formed by the fusion of ring X to the adjacent nitrogen-containing 6-membered heteroaryl ring ring x, m and q are as defined in claim 2 4 and L is a displaceable group;

b) reacting an activated bicyclic heteroaryl ring of the Formula (IV):



wherein G, R¹, ~~ring X and m~~ and the bicyclic ring formed by the fusion of ring X to the adjacent nitrogen-containing 6-membered heteroaryl ring are as defined in claim 2-4 and wherein L is a displaceable group, with an aniline of the Formula (V):



wherein R², R³, R⁴, R⁵ and q are as defined in claim 2-4; or

c) for the preparation of a compound of the Formula (I) wherein R¹ or a substituent on R⁴ is C₁₋₆alkoxy or substituted C₁₋₆alkoxy, C₁₋₆alkylS-, N-C₁₋₆alkylamino, N,N-(C₁₋₆alkyl)₂amino **or substituted C₁₋₆alkylamino**, the alkylation, conveniently in the presence of a suitable base, of a compound of the Formula (I) wherein R¹ or a substituent on R⁴ is hydroxy, mercapto or amino as appropriate;

and thereafter if necessary:

- i) converting a compound of the Formula (I) into another compound of the Formula (I);
- ii) removing any protecting groups; and
- iii) forming a pharmaceutically acceptable salt or *in vivo* cleavable ester.

Claim 10. (currently amended): A pharmaceutical composition which comprises a bicyclic compound of the Formula (I), or a pharmaceutically acceptable salt or *in vivo* cleavable ester thereof, according to any one of claims 2-8 1-8 in association with a pharmaceutically acceptable diluent or carrier.

Claim 11 (canceled).

Claim 12 (currently amended): A method of treating a disease or medical condition mediated by cytokines which comprises administering to a warm-blooded animal in need thereof an effective amount of a bicyclic compound of the Formula (I), or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof, according to any one of claims 2-8 1-8.

Claim 13 (canceled).

Claim 14 (new): A method for producing an enzyme p38 kinase inhibiting effect in a warm-blooded animal which comprises administering to said animal an enzyme inhibiting amount of a compound of Formula (I), or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof, according to any one of claims 2-8.

Claim 15 (new): A method for producing a TNF α inhibiting effect in a warm-blooded animal which comprises administering to said animal a TNF α inhibiting amount of a compound of Formula (I), or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof, according to any one of claims 2-8.

Claim 16 (new): A method for the treatment of rheumatoid arthritis in a warm-blooded animal in need thereof comprising administering to said animal a treatment-effective amount of a compound of Formula (I), or a pharmaceutically acceptable salt or an *in vivo* cleavable ester thereof, according to any one of claims 2-8.

Claim 17 (new): A method for producing an enzyme p38 kinase inhibiting effect in a warm-blooded animal which comprises administering to said animal an enzyme inhibiting amount of the compound 7-amino-4-(3-acetamidoanilino)pyrido[4,3-*d*]pyrimidine.

Claim 18 (new): A method for producing TNF α inhibiting effect in a warm-blooded animal which comprises administering to said animal TNF α inhibiting amount of the compound 7-amino-4-(3-acetamidoanilino)pyrido[4,3-*d*]pyrimidine.

Claim 19 (new): A method for the treatment of rheumatoid arthritis in a warm-blooded animal in need thereof comprising administering to said animal a treatment-effective amount of the compound 7-amino-4-(3-acetamidoanilino)pyrido[4,3-*d*]pyrimidine.